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 NEWS 4 Feb 16 TOXLINE no longer being updated
 NEWS 5 Apr 23 Search Derwent WPINDEX by chemical structure
 NEWS 6 Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
 NEWS 7 May 07 DGENE Reload
 NEWS 8 Jun 20 Published patent applications (A1) are now in USPATFULL
 NEWS 9 JUL 13 New SDI alert frequency now available in Derwent's
 DWPI and DPCI

NEWS EXPRESS July 11 CURRENT WINDOWS VERSION IS V6.0b,
 CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),
 AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:05:27 ON 23 JUL 2001

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|------------|---------|
| ENTRY | SESSION |
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FULL ESTIMATED COST

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|-----|--------|---------------------|
| E1 | 1 | NIACET/BI |
| E2 | 2 | NIACIDE/BI |
| E3 | 15 --> | NIACIN/BI |
| E4 | 5 | NIACINAMIDE/BI |
| E5 | 3 | NIACINATE/BI |
| E6 | 2 | NIACINI/BI |
| E7 | 1 | NIACOL/BI |
| E8 | 5 | NIACYCLO/BI |
| E9 | 1 | NIACYCLODODECA/BI |
| E10 | 1 | NIACYCLODODECANE/BI |
| E11 | 3 | NIACYCLOPENT/BI |
| E12 | 21 | NIAD/BI |

=> s e3

L1 15 NIACIN/BI

=> s niacin

L2 15 NIACIN

=> e niacin

| | | |
|-----|--------|---------------------|
| E1 | 1 | NIACET/BI |
| E2 | 2 | NIACIDE/BI |
| E3 | 15 --> | NIACIN/BI |
| E4 | 5 | NIACINAMIDE/BI |
| E5 | 3 | NIACINATE/BI |
| E6 | 2 | NIACINI/BI |
| E7 | 1 | NIACOL/BI |
| E8 | 5 | NIACYCLO/BI |
| E9 | 1 | NIACYCLODODECA/BI |
| E10 | 1 | NIACYCLODODECANE/BI |
| E11 | 3 | NIACYCLOPENT/BI |
| E12 | 21 | NIAD/BI |

=> s e4

L3 5 NIACINAMIDE/BI

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|----------------------|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 12.02 | 12.17 |

FILE 'CAPLUS' ENTERED AT 12:06:43 ON 23 JUL 2001
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FILE COVERS 1947 - 23 Jul 2001 VOL 135 ISS 5
FILE LAST UPDATED: 22 Jul 2001 (20010722/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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CAPLUS now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

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(FILE 'HOME' ENTERED AT 12:05:27 ON 23 JUL 2001)

FILE 'REGISTRY' ENTERED AT 12:05:31 ON 23 JUL 2001

E NIACIN
L1 15 S E3
L2 15 S NIACIN
E NIACIN
L3 5 S E4

FILE 'CAPLUS' ENTERED AT 12:06:43 ON 23 JUL 2001

=> s l1

L4 13365 L1

=> s l3

L5 5592 L3

=> s hiv or retrovirus

39133 HIV
10264 RETROVIRUS
L6 48143 HIV OR RETROVIRUS

=> s l4 and l6

=> d 17 1-30

L7 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 2001:294981 CAPLUS
DN 134:311436
TI Methods of preparing novel dipeptides with HIV protease
inhibitory activity
IN Kato, Ryohei; Mimoto, Tsutomu; Fukazawa, Tominaga; Morohashi, Naoko;
Kiso, Yoshiaki
PA Japan Energy Corporation, Japan
SO U.S., 25 pp., Cont.-in-part of U.S. 5,932,550.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 6222043 | B1 | 20010424 | US 1999-228009 | 19990108 |
| | US 5932550 | A | 19990803 | US 1996-669757 | 19960626 |
| | ZA 9605472 | A | 19970127 | ZA 1996-5472 | 19960627 |
| | US 5962640 | A | 19991005 | US 1998-137608 | 19980821 |
| PRAI | JP 1995-188151 | A | 19950630 | | |
| | JP 1996-140678 | A | 19960510 | | |
| | US 1996-669757 | A2 | 19960626 | | |

OS MARPAT 134:311436

RE.CNT 45

RE

- (1) Anderson; US 5126326 1992 CAPLUS
 - (2) Anderson; US 5212157 1993 CAPLUS
 - (3) Anon; EP 0394853 1990 CAPLUS
 - (4) Anon; EP 0438311 A2 1991 CAPLUS
 - (5) Anon; EP 0490667 A2 1992 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 2001:265385 CAPLUS
DN 134:295739
TI Preparation of N-aryl-N-(heterocyclylalkyl)piperidinecarboxamides as CCR5
antagonists
IN Imamura, Shinichi; Hashiguchi, Shohei; Hattori, Taeko; Nishimura, Osamu;
Kanzaki, Naoyuki; Baba, Masanori; Sugihara, Yoshihiro
PA Takeda Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 392 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001025200 | A1 | 20010412 | WO 2000-JP6755 | 20000929 |
| | W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, | | | | |
| | CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, | | | | |
| | LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, | | | | |
| | RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, | | | | |
| | BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, | | | | |
| | DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, | | | | |
| | CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | JP 1999-282088 | A | 19991001 | | |

OS MARPAT 134:295739

RE.CNT 6

RE

- (1) Bhuniya; CAPLUS
- (2) Bhuniya; SYNTH COMMUN 1994, V24(3), P375 CAPLUS
- (3) Bolhofer, W; US 4203988 A 1980 CAPLUS
- (4) Pharmaceutical Discovery Corp; WO 9422861 A 1994 CAPLUS
- (5) Porter, R; WO 9917773 A 1999 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 2001:6065 CAPLUS

DN 134:37051

TI Method for immune-system strengthening and development of a lipid transporter for anti-HIV and antibacterial gene therapy

IN Worm, Richard; Correa, Michel; Mavoungou, Donatien

PA Can.

SO Fr. Demande, 16 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | FR 2792201 | A1 | 20001020 | FR 1999-4706 | 19990415 |

L7 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 2000:220728 CAPLUS

DN 132:265504

TI Preparation of hydroxyethylamino sulfonamides useful as retroviral protease inhibitors.

IN Vazquez, Michael L.; Mueller, Richard A.; Talley, John J.; Getman, Daniel P.; Decrescenzo, Gary A.; Freskos, John N.; Bertebshaw, Deborah E.; Heintz, Robert M.

PA Searle and Co., USA

SO U.S., 119 pp., Cont.-in-part of U.S. 204,872, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | US 6046190 | A | 20000404 | US 1996-586866 | 19960124 |
| | WO 9404492 | A1 | 19940303 | WO 1993-US7814 | 19930824 |
| | W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | EP 810209 | A2 | 19971203 | EP 1997-113434 | 19930824 |
| | EP 810209 | A3 | 19981202 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE | | | | |
| | WO 9506030 | A1 | 19950302 | WO 1994-US9139 | 19940823 |
| | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, US, UZ, VN | | | | |
| | RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, | | | | |

TG

PRAI US 1992-934984 B2 19920825

WO 1993-US7814 A2 19930824

US 1994-204872 B2 19940302
WO 1994-US9139 W 19940823
EP 1993-923714 A3 19930824
US 1993-110911 A 19930824
US 1994-204827 A 19940302

OS MARPAT 132:265504

RE.CNT 45

RE

- (1) Anon; EP 104041 1980 CAPLUS
- (2) Anon; EP 172347 1980 CAPLUS
- (3) Anon; EP 223437 1980 CAPLUS
- (4) Anon; WO 8403044 1984 CAPLUS
- (5) Anon; GB 2184730 1987 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 2000:29393 CAPLUS

DN 133:16730

TI Niacin as a potential AIDS preventive factor

AU Murray, M. F.

CS HIV/AIDS Service, Department of Medicine, Tewksbury Hospital, Tewksbury, MA, 01876, USA

SO Med. Hypotheses (1999), 53(5), 375-379

CODEN: MEHYDY; ISSN: 0306-9877

PB Churchill Livingstone

DT Journal; General Review

LA English

RE.CNT 44

RE

- (3) Bofill, M; J Biol Chem 1995, V270, P29690 CAPLUS
- (5) Carlucci, F; Biomed Pharmacother 1996, V50, P158 CAPLUS
- (9) Deterre, P; J Immunol 1996, V157, P1381 CAPLUS
- (10) DiPalma, J; Annu Rev Nutr 1991, V11, P169 CAPLUS
- (15) Fuchs, D; Immun Lett 1991, V28, P207 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1999:670116 CAPLUS

DN 131:295568

TI .alpha.- and .beta.-Amino acid hydroxyethylamino sulfonamides useful as retroviral protease inhibitors

IN Vazques, Michael L.; Mueller, Richard A.; Talley, John J.; Getman, Daniel P.; Decrescenzo, Gary A.; Freskos, John N.; Bertenshaw, Deborah E.; Heintz, Robert M.

PA G. D. Searle and Co., USA

SO U.S., 130 pp., Cont.-in-part of U. S. 204,827.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|--|----------|-----------------|----------|
| PI | US 5968942 | A | 19991019 | US 1994-294468 | 19940823 |
| | WO 9404492 | A1 | 19940303 | WO 1993-US7814 | 19930824 |
| | W: | AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN | | | |
| | RW: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| | EP 810209 | A2 | 19971203 | EP 1997-113434 | 19930824 |
| | EP 810209 | A3 | 19981202 | | |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE | | | |
| | US 6060476 | A | 20000509 | US 1994-204827 | 19940302 |

US 6248775 B1 20010619 US 1999-288080 19990408
 PRAI US 1992-934984 B2 19920825
 WO 1993-US7814 A2 19930824
 US 1994-204827 A2 19940302
 EP 1993-923714 A3 19930824
 US 1993-110911 A2 19930824
 US 1994-294468 A1 19940823

OS MARPAT 131:295568

RE.CNT 44

RE

- (1) Anon; EP 0104041 1984 CAPLUS
- (2) Anon; EP 0114993 1984 CAPLUS
- (3) Anon; EP 0172347 1986 CAPLUS
- (4) Anon; EP 0223437 1987 CAPLUS
- (5) Anon; GB 2184730 1987 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1999:464280 CAPLUS

DN 131:116153

TI Preparation of N-(phenylcyclopropyl)-N'-pyridylurea derivatives as antivirals and as HIV reverse transcriptase inhibitors

IN Sahlberg, Christer; Noreen, Rolf; Hogberg, Marita; Engelhardt, Per
 PA Medivir AB, Swed.

SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9936406 | A1 | 19990722 | WO 1999-SE53 | 19990115 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, | | | | |
| TM | | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9924450 | A1 | 19990802 | AU 1999-24450 | 19990115 |
| | EP 1054867 | A1 | 20001129 | EP 1999-903983 | 19990115 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| PRAI | SE 1998-113 | A | 19980116 | | |
| | SE 1998-116 | A | 19980116 | | |
| | WO 1999-SE53 | W | 19990115 | | |

OS MARPAT 131:116153

RE.CNT 1

RE

- (1) Medivir Ab; WO 9506034 A1 1995 CAPLUS

L7 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1998:661494 CAPLUS

DN 129:298375

TI Antimicrobial prevention and treatment of human immunodeficiency virus and

other infectious diseases

IN Squires, Meryl

PA USA

SO PCT Int. Appl., 99 pp.

CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9842188 | A1 | 19981001 | WO 1998-US5792 | 19980324 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9867718 | A1 | 19981020 | AU 1998-67718 | 19980324 |
| | AU 727339 | B2 | 20001207 | | |
| | BR 9807892 | A | 20000222 | BR 1998-7892 | 19980324 |
| | EP 980203 | A1 | 20000223 | EP 1998-913086 | 19980324 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2000119188 | A2 | 20000425 | JP 1999-315917 | 19980324 |
| | NO 9904639 | A | 19991124 | NO 1999-4639 | 19990924 |
| PRAI | US 1997-824041 | A | 19970326 | | |
| | JP 1998-545926 | A3 | 19980324 | | |
| | WO 1998-US5792 | W | 19980324 | | |

L7 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1998:293427 CAPLUS
DN 129:8597
TI Embedding and encapsulation of controlled release particles
IN Van Lengerich, Bernhard H.
PA Van Lengerich, Bernhard H., USA
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9818610 | A1 | 19980507 | WO 1997-US18984 | 19971027 |
| | W: AU, CA, JP, NO, PL, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | AU 9749915 | A1 | 19980522 | AU 1997-49915 | 19971027 |
| | EP 935523 | A1 | 19990818 | EP 1997-912825 | 19971027 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | NO 9902036 | A | 19990428 | NO 1999-2036 | 19990428 |
| PRAI | US 1996-29038 | | 19961028 | | |
| | US 1997-52717 | | 19970716 | | |
| | WO 1997-US18984 | | 19971027 | | |

L7 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1998:17976 CAPLUS
DN 128:61798
TI Preparation of epoxide peptidomimetics as irreversible HIV protease inhibitors
IN Yoon, Heungsik; Choy, Nakyeon; Kim, Sung Chun; Choi, Ho Il; Son, Young Chan; Park, Chi Hyo; Moon, Kwang-yul; Jung, Wonhee; Kim, Chung Ryeol; Lee, Chang Sun; Koh, Jong Sung; Kim, Sang Soo
PA LG Chemical Ltd., S. Korea
SO U.S., 50 pp. Cont.-in-part of U.S. Ser. No. 341,352, abandoned.

GODEN: USXXAM

DT Patent

LA English

FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| PI | US 5696134 | A | 19971209 | US 1995-473877 | 19950607 |
| | US 5587388 | A | 19961224 | US 1993-159382 | 19931130 |
| | KR 125117 | B1 | 19971205 | KR 1994-13423 | 19940615 |
| | US 5773468 | A | 19980630 | US 1995-572402 | 19951214 |
| | US 5744621 | A | 19980428 | US 1996-667888 | 19960620 |
| | US 5763631 | A | 19980609 | US 1996-667133 | 19960620 |
| PRAI | US 1993-159382 | A2 | 19931130 | | |
| | KR 1994-13423 | A | 19940615 | | |
| | US 1994-341352 | B2 | 19941117 | | |
| | KR 1992-23088 | A | 19921202 | | |
| | KR 1992-23089 | A | 19921202 | | |
| | KR 1993-10811 | A | 19930614 | | |
| | KR 1993-21298 | A | 19931014 | | |
| | KR 1993-21299 | A | 19931014 | | |
| | KR 1993-21300 | A | 19931014 | | |
| | US 1995-473877 | A2 | 19950607 | | |
| | KR 1995-37292 | A | 19951026 | | |
| OS | MARPAT 128:61798 | | | | |

L7 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1997:606368 CAPLUS

DN 127:272289

TI Apoptotic DNA fragmentation, and its in vitro prevention by nicotinamide, in lymphocytes from HIV-1-seropositive patients and in HIV-1-infected MT-4 cells

AU Savarino, A.; Martini, C.; Orofino, G. C.; Cantamessa, C.; Castelli, L.; Pich, P. G.; Sinicco, A.; Pugliese, A.

CS Department of Medical and Surgical Sciences, Section of Infectious Diseases, University of Turin, Italy

SO Cell Biochem. Funct. (1997), 15(3), 171-179

CODEN: CBFUDH; ISSN: 0263-6484

PB Wiley

DT Journal

LA English

L7 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1997:132760 CAPLUS

DN 126:144550

TI HIV-protease inhibitors

IN Kato, Ryohei; Mimoto, Tsutomu; Fukazawa, Tominaga; Morohashi, Naoko; Kiso,

Yoshiaki

PA Japan Energy Corporation, Japan

SO Eur. Pat. Appl., 34 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | EP 751145 | A2 | 19970102 | EP 1996-304764 | 19960628 |
| | EP 751145 | A3 | 19971008 | | |
| | R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | CA 2179935 | AA | 19961231 | CA 1996-2179935 | 19960626 |
| | JP 10025242 | A2 | 19980127 | JP 1996-185631 | 19960626 |
| | ZA 9605472 | A | 19970127 | ZA 1996-5472 | 19960627 |
| | NO 9602748 | A | 19970102 | NO 1996-2748 | 19960628 |

.AU 9656285 A1 19970206 AU 1996-56285 19960628
 AU 705193 B2 19990520
 PRAI JP 1995-188151 A 19950630
 JP 1996-140678 A 19960510
 OS MARPAT 126:144550

L7 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1997:79334 CAPLUS
 DN 126:143042
 TI Investigation of the potential role of membrane CD38 in protection
 against
 cell death induced by **HIV-1**
 AU Savarino, A.; Pugliese, A.; Martini, C.; Pich, P.G.; Pescarmona, G.P.;
 Malavasi, F.
 CS Department of Medical and Surgical Sciences, University of Torino, Turin,
 Italy
 SO J. Biol. Regul. Homeostatic Agents (1996), 10(1), 13-18
 CODEN: JBRAER; ISSN: 0393-974X
 PB Wichtig
 DT Journal
 LA English

L7 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1996:515414 CAPLUS
 DN 125:276411
 TI Synthesis and antiviral activity of N-4'-dihydropyridinyl and
 dihydroquinolinylcarbonyl-2-hydroxymethyl-5-[cytosin-1'-yl]-1,3-
 oxathiolane derivatives against human immunodeficiency virus and duck
 hepatitis B virus
 AU Camplo, M.; Charvey-Faury, A. S.; Borel, C.; Turin, F.; Hantz, O.;
 Traubaud, C.; Niddam, V.; Mourier, N.; Graciet, J. C.; et al.
 CS Labroatoire de Chimie Biolmoleculaire, Faculte des Sciences de Luminy,
 Marseille, 13288, Fr.
 SO Eur. J. Med. Chem. (1996), 31(7-8), 539-546
 CODEN: EJMCA5; ISSN: 0223-5234
 DT Journal
 LA English

L7 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1996:171803 CAPLUS
 DN 124:233139
 TI Preparation of sulfonylamino acid amides containing cis-epoxide as
 irreversible **HIV** protease inhibitors
 IN Yoon, Heungsik; Choy, Nakyeon; Kim, Sung Chun; Choi, Ho II; Son, Young
 Chan; Park, Chi Hyo; Moon, Kwang-Yul; Jung, Wonhee; Kim, Chung Ryeol; et
 al.
 PA IG Chemical Ltd., S. Korea
 SO Eur. Pat. Appl., 58 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 687675 | A2 | 19951220 | EP 1995-108908 | 19950609 |
| | EP 687675 | A3 | 19960306 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, | | | | |
| SE | KR 125117 | B1 | 19971205 | KR 1994-13423 | 19940615 |
| | JP 08193077 | A2 | 19960730 | JP 1995-172733 | 19950615 |
| | JP 2987313 | B2 | 19991206 | | |
| PRAI | KR 1994-13423 | A | 19940615 | | |
| OS | MARPAT 124:233139 | | | | |

L7 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1995:958459 CAPLUS
 DN 124:7065
 TI Biochemically active agents for chemical catalysis and cell receptor activation
 IN Kossovsky, Nir; Sponsler, Edward; Gelman, Andrew; Rajguru, Samir
 PA The Regents of the University of California, USA
 SO U.S., 13 pp. Cont.-in-part of U.S. 5,334,394.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 10

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 5460830 | A | 19951024 | US 1993-145870 | 19931101 |
| | US 5219577 | A | 19930615 | US 1990-542255 | 19900622 |
| | US 5178882 | A | 19930112 | US 1991-690601 | 19910424 |
| | JP 05255111 | A2 | 19931005 | JP 1991-178805 | 19910624 |
| | JP 2932406 | B2 | 19990809 | | |
| | US 5334394 | A | 19940802 | US 1993-199 | 19930104 |
| | US 5462750 | A | 19951031 | US 1994-225100 | 19940408 |
| | WO 9512392 | A1 | 19950511 | WO 1994-US12515 | 19941031 |
| | W: CA, JP | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | CA 2174244 | AA | 19950511 | CA 1994-2174244 | 19941031 |
| | EP 726767 | A1 | 19960821 | EP 1995-901094 | 19941031 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| SE | JP 09504790 | T2 | 19970513 | JP 1994-513349 | 19941031 |
| PRAI | US 1990-542255 | | 19900622 | | |
| | US 1991-690601 | | 19910424 | | |
| | US 1993-199 | | 19930104 | | |
| | US 1993-986 | | 19930106 | | |
| | US 1993-145870 | | 19931101 | | |
| | US 1993-146536 | | 19931101 | | |
| | US 1993-147751 | | 19931104 | | |
| | WO 1994-US12515 | | 19941031 | | |

L7 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1995:871984 CAPLUS
 DN 123:279761
 TI Hydroxyethylamino sulfonamides useful as retroviral protease inhibitors
 IN Vazquez, Michael L.; Mueller, Richard A.; Talley, John J.; Getman, Daniel P.; Decrescenzo, Gary A.; Freskos, John N.; Bertenshaw, Deborah E.; Heintz, Robert M.
 PA Searle, G. D., and Co., USA; Monsanto Co.
 SO PCT Int. Appl., 255 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 9506030 | A1 | 19950302 | WO 1994-US9139 | 19940823 |
| | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, US, UZ, VN | | | | |
| | RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, | | | | |
| TG | US 5843946 | A | 19981201 | US 1993-110911 | 19930824 |

| | | | | |
|------------|----|----------|----------------|----------|
| US 6060476 | A | 20000509 | US 1994-204827 | 19940302 |
| AU 9476697 | A1 | 19950321 | AU 1994-76697 | 19940823 |
| EP 715618 | A1 | 19960612 | EP 1994-927162 | 19940823 |
| EP 715618 | B1 | 19981216 | | |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE

| | | | | |
|------------|---|----------|----------------|----------|
| US 6046190 | A | 20000404 | US 1996-586866 | 19960124 |
|------------|---|----------|----------------|----------|

PRAI US 1993-110911 A 19930824

US 1994-204827 A 19940302

US 1992-934984 B2 19920825

WO 1993-US7814 A2 19930824

US 1994-204872 B2 19940302

WO 1994-US9139 W 19940823

OS MARPAT 123:279761

L7 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1995:701735 CAPLUS

DN 123:112727

TI Preparation of dipeptide derivatives of 5-amino-4-hydroxyhexanoic acid as HIV protease inhibitors.

IN Bold, Guido; Lang, Marc; Faessler, Alexander; Capraro, Hans-Georg; Bhagwat, Shripad

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 116 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | EP 618222 | A2 | 19941005 | EP 1994-810133 | 19940302 |
| | EP 618222 | A3 | 19970102 | | |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,

SE

| | | | | |
|-------------|----|----------|-----------------|----------|
| AU 9457588 | A1 | 19940915 | AU 1994-57588 | 19940304 |
| AU 678202 | B2 | 19970522 | | |
| FI 9401064 | A | 19940912 | FI 1994-1064 | 19940307 |
| CA 2118661 | AA | 19940912 | CA 1994-2118661 | 19940309 |
| NO 9400853 | A | 19940912 | NO 1994-853 | 19940310 |
| ZA 9401668 | A | 19940913 | ZA 1994-1668 | 19940310 |
| HU 67089 | A2 | 19950130 | HU 1994-720 | 19940310 |
| CN 1112125 | A | 19951122 | CN 1994-104099 | 19940310 |
| JP 07316191 | A2 | 19951205 | JP 1994-67908 | 19940311 |

PRAI CH 1993-772 19930311

OS MARPAT 123:112727

L7 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1995:673568 CAPLUS

DN 123:109959

TI HIV infection decreases intracellular nicotinamide adenine dinucleotide [NAD]

AU Murray, Michael F.; Nghiem, Michael; Srinivasan, Alagarsamy

CS Dep. Med., Univ. PA Sch. Med., Philadelphia, PA, USA

SO Biochem. Biophys. Res. Commun. (1995), 212(1), 126-31

CODEN: BBRCA9; ISSN: 0006-291X

DT Journal

LA English

L7 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1995:590755 CAPLUS

DN 123:357

TI Nicotinamide inhibits HIV-1 in both acute and chronic in vitro infection

AU Murray, Michael F.; Srinivasan, Alagarsamy

..CS Department of Medicine, University of PA School of Medicine,
Philadelphia,

Panama

SO Biochem. Biophys. Res. Commun. (1995), 210(3), 954-9

CODEN: BBRCA9; ISSN: 0006-291X

DT Journal

LA English

L7 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1995:556533 CAPLUS

DN 123:143841

TI Synthesis and antiviral evaluation of fluorinated dipyridodiazepinones
and

dipyridodiazepines (nevirapine derivatives)

AU Boyode, B. P.; Sinet, M.; Barese, A.; Forestier-Roux, M.-A.; Condom, R.;
Ayi, I. A.; Kirn, A.; Moog, C.; Guedj, R.

CS Faculte Sciences, Universite Nice-Sophia Antipolis, Nice, F-06108, Fr.

SO Antiviral Chem. Chemother. (1995), 6(3), 162-8

CODEN: ACCHEH; ISSN: 0956-3202

DT Journal

LA English

L7 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1993:650508 CAPLUS

DN 119:250508

TI Preparation of 5-amino-4-hydroxyhexanoic acid derivative containing
peptides as HIV protease inhibitors

IN Lang, Marc; Bold, Guido; Faessler, Alexander; Schneider, Peter; Van
Hoogesvest, Peter

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 79 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | EP 532466 | A2 | 19930317 | EP 1992-810678 | 19920903 |
| | EP 532466 | A3 | 19930616 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, | | | | |
| SE | JP 05230095 | A2 | 19930907 | JP 1992-238424 | 19920907 |
| | CA 2077948 | AA | 19930313 | CA 1992-2077948 | 19920910 |
| | AU 9222889 | A1 | 19930318 | AU 1992-22889 | 19920910 |
| | AU 661018 | B2 | 19950713 | | |
| | IL 103126 | A1 | 19970930 | IL 1992-103126 | 19920910 |
| | NO 9203533 | A | 19930315 | NO 1992-3533 | 19920911 |
| | HU 63632 | A2 | 19930928 | HU 1992-2925 | 19920911 |
| | ZA 9206938 | A | 19940311 | ZA 1992-6938 | 19920911 |
| | PL 169969 | B1 | 19960930 | PL 1992-295905 | 19920911 |
| | RU 2067585 | C1 | 19961010 | RU 1992-5052915 | 19920911 |
| | CN 1089269 | A | 19940713 | CN 1993-100044 | 19930104 |
| PRAI | CH 1991-2689 | | 19910912 | | |
| | CH 1992-980 | | 19920327 | | |
| | CH 1992-2007 | | 19920625 | | |
| OS | MARPAT 119:250508 | | | | |

L7 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1993:22632 CAPLUS

DN 118:22632

TI Preparation of peptide analogs for treatment of acquired immunodeficiency
syndrome

IN Yabe, Yuichiro; Sakurai, Mitsuya; Higashida, Susumu; Komai, Tomoaki;

Nishigaki, Takashi; Handa, Hiroshi
 PA Sankyo Co., Ltd., Japan
 SO Eur. Pat. Appl., 96 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 498680 | A1 | 19920812 | EP 1992-301100 | 19920210 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE | | | | |
| | JP 05078311 | A2 | 19930330 | JP 1992-21385 | 19920206 |
| | JP 2500034 | B2 | 19960529 | | |
| | CA 2060844 | AA | 19920809 | CA 1992-2060844 | 19920207 |
| | AU 9210812 | A1 | 19920813 | AU 1992-10812 | 19920207 |
| | AU 647239 | B2 | 19940317 | | |
| | HU 60282 | A2 | 19920828 | HU 1992-392 | 19920207 |
| | ZA 9200913 | A | 19930506 | ZA 1992-913 | 19920207 |
| | IL 100899 | A1 | 19970610 | IL 1992-100899 | 19920207 |
| | RU 2120447 | C1 | 19981020 | RU 1992-5011192 | 19920207 |
| | CN 1064683 | A | 19920923 | CN 1992-101909 | 19920208 |
| | CN 1039321 | B | 19980729 | | |
| PRAI | JP 1991-17341 | | 19910208 | | |
| OS | MARPAT 118:22632 | | | | |

L7 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1992:612977 CAPLUS
 DN 117:212977
 TI Preparation of retroviral protease inhibitors derived from
 3-chloro-2-chloromethyl-1-propene
 IN Babine, Robert E.; Zhang, Nan; Schow, Steven R.; Jurgens, Alex Roger
 PA American Cyanamid Co., USA
 SO Eur. Pat. Appl., 71 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 492136 | A2 | 19920701 | EP 1991-119897 | 19911122 |
| | EP 492136 | A3 | 19930526 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | JP 04334349 | A2 | 19921120 | JP 1991-353289 | 19911217 |
| | CA 2057972 | AA | 19920621 | CA 1991-2057972 | 19911218 |
| | FI 9106022 | A | 19920621 | FI 1991-6022 | 19911219 |
| | NO 9105030 | A | 19920622 | NO 1991-5030 | 19911219 |
| | HU 59655 | A2 | 19920629 | HU 1991-4036 | 19911219 |
| | AU 9189941 | A1 | 19920709 | AU 1991-89941 | 19911219 |
| | ZA 9110016 | A | 19920930 | ZA 1991-10016 | 19911219 |
| | CN 1062536 | A | 19920708 | CN 1991-111849 | 19911220 |
| PRAI | US 1990-630915 | | 19901220 | | |
| OS | MARPAT 117:212977 | | | | |

L7 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1991:622844 CAPLUS
 DN 115:222844
 TI Inhibitors of ADP-ribosylation as antiviral drugs: experimental study on
 the model of HIV infection
 AU Krasil'nikov, I. I.; Kalnina, L. B.; Korneeva, M. N.; Nosik, D. N.;
 Zlobin, A. Yu.; Vladimirov, V. G.; L'vov, D. K.
 CS Inst. Virusol. im. Ivanovskogo, Moscow, USSR
 SO Vopr. Virusol. (1991), 36(3), 216-18
 CODEN: VVIRAT; ISSN: 0507-4088

DT Journal
LA Russian

L7 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1991:95145 CAPLUS
DN 114:95145
TI AZT analogs for treatment of **retrovirus** infections
IN Agrawall, Kirshna
PA Tulane Educational Fund, Inc., USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9004969 | A1 | 19900517 | WO 1989-US4860 | 19891030 |
| | RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE | | | | |
| | US 5026688 | A | 19910625 | US 1988-265201 | 19881031 |
| | CA 2001899 | AA | 19900430 | CA 1989-2001899 | 19891031 |
| PRAI | US 1988-265201 | | 19881031 | | |
| OS | MARPAT 114:95145 | | | | |

L7 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1990:610545 CAPLUS
DN 113:210545
TI Micronutrient status and human immunodeficiency virus (HIV) infection
AU Bogden, John D.; Baker, Herman; Frank, Oscar; Perez, George; Kemp, Francis; Bruening, Kay; Louria, Donald
CS New Jersey Med. Sch., Univ. Med. Dent., Newark, NJ, 07103-2757, USA
SO Ann. N. Y. Acad. Sci. (1990), 587(Micronutr. Immune Funct./Cytokines Metab.), 189-95
CODEN: ANYAA9; ISSN: 0077-8923

DT Journal
LA English

L7 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1990:497961 CAPLUS
DN 113:97961
TI Brain targeting of anti-HIV nucleosides: synthesis and in vitro and in vivo studies of dihydropyridine derivatives of 3'-azido-2',3'-dideoxyuridine and 3'-azido-3'-deoxythymidine
AU Chu, C. K.; Bhadti, V. S.; Doshi, K. J.; Etse, J. T.; Gallo, J. M.; Boudinot, F. D.; Schinazi, R. F.
CS Coll. Pharm., Univ. Georgia, Athens, GA, 30602, USA
SO J. Med. Chem. (1990), 33(8), 2188-92
CODEN: JMCMAR; ISSN: 0022-2623

DT Journal
LA English

OS CASREACT 113:97961

L7 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1990:198959 CAPLUS
DN 112:198959
TI Synthesis and biological evaluation of prodrugs of zidovudine
AU Aggarwal, Sunil K.; Gogu, Sudhir R.; Rangan, S. R. S.; Agrawal, Krishna C.
CS Sch. Med., Tulane Univ., New Orleans, LA, 70112, USA
SO J. Med. Chem. (1990), 33(5), 1505-10
CODEN: JMCMAR; ISSN: 0022-2623

DT Journal
LA English

L7 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1990:151841 CAPLUS
 DN 112:151841
 TI Preparation of glycerophosphate derivatives as animal virucides
 IN Shenfeld, Avner
 PA Scienscope International N. V., Neth.
 SO Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 316117 | A1 | 19890517 | EP 1988-310391 | 19881104 |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | WO 8904314 | A1 | 19890518 | WO 1988-NL48 | 19881102 |
| | W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NL, NO, RO, SD, SU | | | | |
| | RW: BJ, CF, CG, CM, GA, ML, MR, SN, TD, TG | | | | |
| | AU 8826199 | A1 | 19890601 | AU 1988-26199 | 19881102 |
| | JP 02502096 | T2 | 19900712 | JP 1988-508750 | 19881102 |
| | FI 8903279 | A | 19890705 | FI 1989-3279 | 19890705 |
| PRAI | IL 1987-84387 | | 19871106 | | |
| | WO 1988-N | | | | |
| L48 | | | | | 19881102 |
| OS | MARPAT 112:151841 | | | | |

=> s 15 andl 16

MISSING OPERATOR L5 ANDL

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 15 and 16

L8 9 L5 AND L6

=> d 18 109

9 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE

The answer numbers requested are not in the answer set.

ENTER ANSWER NUMBER OR RANGE (1):9

L8 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2001 ACS
 AN 1990:151841 CAPLUS
 DN 112:151841
 TI Preparation of glycerophosphate derivatives as animal virucides
 IN Shenfeld, Avner
 PA Scienscope International N. V., Neth.
 SO Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | EP 316117 | A1 | 19890517 | EP 1988-310391 | 19881104 |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |

WO 8904314 A1 19890518 WO 1988-NL48 19881102
W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NL, NO,
RO, SD, SU
RW: BJ, CF, CG, CM, GA, ML, MR, SN, TD, TG
AU 8826199 A1 19890601 AU 1988-26199 19881102
JP 02502096 T2 19900712 JP 1988-508750 19881102
FI 8903279 A 19890705 FI 1989-3279 19890705
PRAI IL 1987-84387 19871106
WO 1988-N
L48 19881102
OS MARPAT 112:151841

=> d 17 30 29 27 26 20 12 10 8 all

L7 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1990:151841 CAPLUS
DN 112:151841
TI Preparation of glycerophosphate derivatives as animal virucides
IN Shenfeld, Avner
PA Scienscope International N. V., Neth.
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07F009-10
ICS C07F009-09; C07F009-58; A61K031-66
CC 1-5 (Pharmacology)
Section cross-reference(s): 27

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 316117 | A1 | 19890517 | EP 1988-310391 | 19881104 |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | WO 8904314 | A1 | 19890518 | WO 1988-NL48 | 19881102 |
| | W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NL, NO, RO, SD, SU | | | | |
| | RW: BJ, CF, CG, CM, GA, ML, MR, SN, TD, TG | | | | |
| | AU 8826199 | A1 | 19890601 | AU 1988-26199 | 19881102 |
| | JP 02502096 | T2 | 19900712 | JP 1988-508750 | 19881102 |
| | FI 8903279 | A | 19890705 | FI 1989-3279 | 19890705 |
| PRAI | IL 1987-84387 | | 19871106 | | |
| | WO 1988-N | | | | |
| L48 | 19881102 | | | | |
| OS | MARPAT 112:151841 | | | | |
| AB | The acylglycerophosphate esters R1OCH2CH(OR2)CH2OP(O)(O-)GAzR3 [R1, R2 = H, fatty acyl; A = CH2, polymethylene, oxapolyethylene, thiapolyethylene, etc. R3 = (un)substituted Ph or pyridinium, etc.; G = O, S; Z = 0, 1-18] are prepd. as virucides, suitable for treating human immunodeficiency virus (HIV) infections. 2-Hydroxyethyl-1-nicotinamide chloride (prepn. given) was transphosphatidylated enzymically, by the method of Eibel and Kovatchev (1981), to give phosphatidyl-2-hydroxyethyl-1-nicotinamide (I). I (20 .mu.g/mL) totally controlled HIV, in vitro, as shown by the method of Moore, et al. (1978). | | | | |
| ST | virucide animal phospholipid; glycerophosphate deriv prepn AIDS drug | | | | |
| IT | Phosphatidylethanolamines | | | | |
| | RL: RCT (Reactant) (acetylation of) | | | | |
| IT | Phospholipids, biological studies | | | | |
| | RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study) | | | | |

.. (virucides, animal)

IT Immunodeficiency
(acquired immune deficiency syndrome, treatment of, with reaction products of acylglycerophosphates with alcs. and thiols)

IT Phosphatidic acids
RL: SPN (Synthetic preparation); PREP (Preparation)
(esters, prepn. of, as animal virucides)

IT Virucides and Virustats
(medical, reaction products of acid glycerophosphates with alcs. or thiols)

IT Phosphatidylethanolamines
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction products, with acetic anhydride, prepn. of, as animal virucide)

IT 98-92-0, Nicotinamide
RL: BIOL (Biological study)
(condensation of, with chloroethanol)

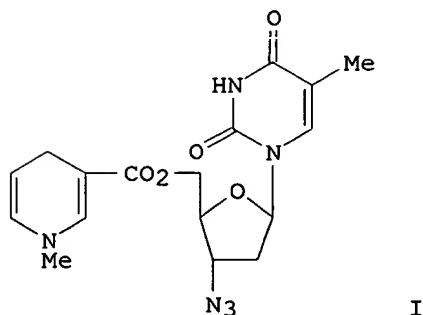
IT 107-07-3, 2-Chloroethanol, biological studies
RL: BIOL (Biological study)
(condensation of, with nicotinamide)

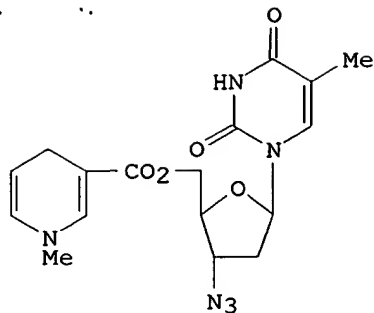
IT 126235-31-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and transphosphatidylation of)

IT 58-27-5DP, reaction products with phosphatidylethanolamines 100-51-6DP, Benzenemethanol, reaction products with phosphatidic acids 108-24-7DP, reaction products with phosphatidylethanolamines 141-79-7DP, reaction products with phosphatidylethanolamines 126235-31-2DP, reaction products
with phosphatidic acids
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as animal virucide)

IT 58-27-5, Menadione
RL: RCT (Reactant)
(reaction of, with phosphatidylethanolamine)

L7 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2001 ACS
AN 1990:198959 CAPLUS
DN 112:198959
TI Synthesis and biological evaluation of prodrugs of zidovudine
AU Aggarwal, Sunil K.; Gogu, Sudhir R.; Rangan, S. R. S.; Agrawal, Krishna C.
CS Sch. Med., Tulane Univ., New Orleans, LA, 70112, USA
SO J. Med. Chem. (1990), 33(5), 1505-10
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 33-9 (Carbohydrates)
Section cross-reference(s): 1
OS CASREACT 112:198959
GI





I

- AB A series of prodrugs of zidovudine (AZT) was synthesized in an effort to enhance the uptake of the prodrugs by the **HIV-1** infected cells and to increase the plasma half-life of AZT. The 5'-OH function of AZT was esterified with various acids in the presence of DCC and 4-(dimethylamino)pyridine (DMAP). The prodrug moieties included (a) morpholine and N-phenylpiperazine-1-acetic acid, (b) 1,4-dihydro-1-methyl-3-nicotinic acid, (c) retinoic acid, and (d) certain amino acids. The anti-**HIV-1** activity of the esters was detd. in peripheral blood lymphocytes. The IC₅₀ for AZT in this system was 0.12 .mu.M whereas for prodrugs it ranged from 0.05 to 0.2 .mu.M. The prodrugs were generally less cytotoxic than AZT except the retinoic acid ester. In vitro hydrolysis of the various esters in human plasma indicated that these agents were relatively stable toward plasma esterases with t_{1/2} ranging from 10 to 240 min. Drug uptake studies in H9 cells with radiolabeled analogs demonstrated that the retinoic acid ester achieved approx. 4-fold higher intracellular concn. than [3H]AZT. However, dihydromethylpyridylcarbonyl ester (I) was the most active agent of this series and had a higher therapeutic index than AZT.
- ST zidovudine prodrug prepn biolog evaluation; AZT acyl AIDS inhibitor; cytotoxicity zidovudine prodrug
- IT Virucides and Virustats
(acyl zidovudines)
- IT Immunodeficiency
(acquired immune deficiency syndrome, inhibitors, acyl zidovudines as, prepn. of)
- IT Pharmaceutical dosage forms
(prodrugs, acyl zidovudines)
- IT 59-67-6, 3-Pyridinecarboxylic acid, reactions 302-79-4, Retinoic acid 2483-46-7 3235-69-6, 4-Morpholineacetic acid 3978-80-1 13139-16-7 13734-34-4 13734-38-8 24277-39-2 119378-70-0
RL: RCT (Reactant)
(acylation by, of zidovudine)
- IT 30516-87-1, Zidovudine
RL: RCT (Reactant)
(acylation of, by retinoic and amino acids)
- IT 125780-78-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and attempted debutoxycarbonylation of)
- IT 116333-41-6P 116333-43-8P 125762-96-1P 125762-97-2P 125780-80-5P
125780-82-7P 125780-84-9P 125780-86-1P 125780-96-3P 125780-97-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and bioactivity of)
- IT 125780-75-8P 125780-76-9P 125780-77-0P 125780-85-0P 125780-98-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and debutoxycarbonylation of)
- L7 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2001 ACS
- AN 1990:610545 CAPLUS

DN .113:210545
 TI Micronutrient status and human immunodeficiency virus (HIV)
 infection
 AU Bogden, John D.; Baker, Herman; Frank, Oscar; Perez, George; Kemp,
 Francis; Bruening, Kay; Louria, Donald
 CS New Jersey Med. Sch., Univ. Med. Dent., Newark, NJ, 07103-2757, USA
 SO Ann. N. Y. Acad. Sci. (1990), 587(Micronutr. Immune Funct./Cytokines
 Metab.), 189-95
 CODEN: ANYAA9; ISSN: 0077-8923
 DT Journal
 LA English
 CC 18-1 (Animal Nutrition)
 Section cross-reference(s): 14, 15
 AB Humans with HIV infections generally showed .gtoreq.1 abnormally
 low level of plasma micronutrients (e.g. minerals, vitamins). Abnormally
 high levels of some micronutrients were also found, but these were
 attributed to the ingestion of high supplement amts.
 ST micronutrient nutrition human immunodeficiency virus infection;
 HIV infection diet micronutrient
 IT Carotenes and Carotenoids, biological studies
 Trace elements, biological studies
 Vitamins
 RL: BIOL (Biological study)
 (HIV virus infection in humans in relation to nutritional
 status of)
 IT Virus, animal
 (human immunodeficiency 1, humans infection by, micronutrient status
 in
 relation to)
 IT Nutrients
 (micro-, HIV virus infection in humans in relation to
 nutritional status of)
 IT 50-81-7, Vitamin C, biological studies 58-85-5, Biotin 59-30-3, Folic
 acid, biological studies 59-43-8, Thiamin, biological studies
 59-67-6, Niacin, biological studies 62-49-7, Choline 68-19-9,
 Vitamin B12 79-83-4, Pantothenic acid 83-88-5, Riboflavin, biological
 studies 87-89-8, Inositol 541-15-1, Carnitine 1406-18-4, Vitamin E
 7439-95-4, Magnesium, biological studies 7440-50-8, Copper, biological
 studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium,
 biological studies 8059-24-3, Vitamin B6 11103-57-4, Vitamin A
 22150-76-1, Biopterin
 RL: BIOL (Biological study)
 (HIV virus infection in humans in relation to nutritional
 status of)
 L7 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1991:95145 CAPLUS
 DN 114:95145
 TI AZT analogs for treatment of **retrovirus** infections
 IN Agrawall, Kirshna
 PA Tulane Educational Fund, Inc., USA
 SO PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K031-70
 CC 1-5 (Pharmacology)
 Section cross-reference(s): 33
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | WO 9004969 | A1 | 19900517 | WO 1989-US4860 | 19891030 |

RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE

| | | | | |
|---------------------|----|----------|-----------------|----------|
| US 5026688 | A | 19910625 | US 1988-265201 | 19881031 |
| CA 2001899 | AA | 19900430 | CA 1989-2001899 | 19891031 |
| PRAI US 1988-265201 | | 19881031 | | |
| OS MARPAT 114:95145 | | | | |
| GI | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB AZT analogs I (R = Q1, Q2, Q3; X = H, CO₂H, C1-6 alkyl, PhCH₂; Y = C1-6 alkyl, C6-10 aryl) are used for the treatment of retroviral infection. Thus, II (prepn. described) inhibited human immunodeficiency virus 1 replication 99.1% in vitro at 0.5 .mu.M, vs. 82.0% for AZT. Toxicity data for II are also presented.

ST AZT analog **retrovirus** infection; human immunodeficiency virus
AZT analog

IT Virucides and Virustats
(AZT analogs as, for retroviral infection)

IT Virus, animal
(human immunodeficiency 1, infection with, treatment of, AZT analogs for)

IT Virus, animal
(retro-, infection with, treatment of, AZT analogs for)

IT 59-67-6, 3-Pyridinecarboxylic acid, biological studies
RL: BIOL (Biological study)
(condensation of, with AZT)

IT 30516-87-1
RL: BIOL (Biological study)
(condensation of, with nicotinic acid)

IT 116333-41-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and human immunodeficiency virus inhibitory action of)

IT 116333-43-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and quaternization of, in AZT analog prepn.)

IT 132186-39-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 116333-42-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, in AZT analog prepn.)

IT 30516-87-1D, analogs 116333-41-6 116333-43-8 125762-96-1
125780-79-2 125780-81-6 125780-97-4 132186-35-7 132186-36-8
132186-37-9 132186-38-0
RL: BIOL (Biological study)
(**retrovirus** infection treatment with)

L7 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1995:590755 CAPLUS

DN 123:357

TI Nicotinamide inhibits HIV-1 in both acute and chronic in vitro infection

AU Murray, Michael F.; Srinivasan, Alagarsamy

CS Department of Medicine, University of PA School of Medicine, Philadelphia, Panama

SO Biochem. Biophys. Res. Commun. (1995), 210(3), 954-9
CODEN: BBRC99; ISSN: 0006-291X

DT Journal

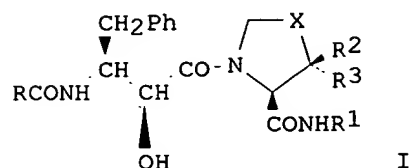
LA English

.. CC .1-5 (Pharmacology)
 AB **HIV-1** infected patients can manifest a no. of poorly understood conditions including dermatitis, dementia, and diarrhea. These conditions are in some ways suggestive of pellagra, the syndrome assocd. with niacin depletion. We demonstrate here that nicotinamide, the amide form of niacin, inhibits **HIV-1** infection in cell culture. Neither nicotinic acid which is the alternative form of niacin, nor thiamine (another B complex vitamin), shows a similar degree of inhibition in tissue culture. This inhibition occurs in both primary cells and in established cell lines. In vitro models of acute and chronic **HIV** infection are demonstrated here to be inhibited by nicotinamide in a dose dependent manner when added in millimolar concns.

ST nicotinamide HIV1 infection inhibition
 IT Virucides and Virustats
 (nicotinamide inhibition of **HIV-1** in acute and chronic in vitro infection)
 IT Virus, animal
 (human immunodeficiency 1, nicotinamide inhibition of **HIV-1** in acute and chronic in vitro infection)
 IT **98-92-0**, Nicotinamide
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inhibition of **HIV-1** in acute and chronic in vitro infection by)
 IT **59-43-8**, Thiamine, biological studies **59-67-6**, Nicotinic acid, biological studies
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nicotinamide inhibition of **HIV-1** in acute and chronic in vitro infection comparison with)

L7 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2001 ACS
 AN 1997:132760 CAPLUS
 DN 126:144550
 TI **HIV**-protease inhibitors
 IN Kato, Ryohei; Mimoto, Tsutomu; Fukazawa, Tominaga; Morohashi, Naoko; Kiso, Yoshiaki
 PA Japan Energy Corporation, Japan
 SO Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C07K005-02
 ICS C07D207-16; C07D263-06; C07D277-06; A61K031-40; A61K031-42; A61K031-425
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1, 15
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 751145 | A2 | 19970102 | EP 1996-304764 | 19960628 |
| | EP 751145 | A3 | 19971008 | | |
| | R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | CA 2179935 | AA | 19961231 | CA 1996-2179935 | 19960626 |
| | JP 10025242 | A2 | 19980127 | JP 1996-185631 | 19960626 |
| | ZA 9605472 | A | 19970127 | ZA 1996-5472 | 19960627 |
| | NO 9602748 | A | 19970102 | NO 1996-2748 | 19960628 |
| | AU 9656285 | A1 | 19970206 | AU 1996-56285 | 19960628 |
| | AU 705193 | B2 | 19990520 | | |
| PRAI | JP 1995-188151 | A | 19950630 | | |
| | JP 1996-140678 | A | 19960510 | | |



AB Dipeptides I (X = CH₂, CHCl, O, S, SO₂; R = 5- or 6-membered monocyclic hydrocarbon or heterocyclic group; R₁ = alkyl, monocyclic hydrocarbon group; R₂, R₃ = H, alkyl) were prepd. as **HIV**-protease inhibitors. Thus, treatment of a suspension of (R)-[(2S,3S)-3-amino-2-hydroxy-4-phenylbutanoyl]-1,3-thiazolidine-4-N'-tert-butylcarboxamide, (2S,3S)-H-AHPBA-Thz-NH-tBu, and benzoic acid in DMF with EDC.HCl and HOBT-H₂O for 14 h at room temp. afforded benzoyl deriv. I (X = S, R = Ph, R₁ = t-Bu, R₂ = R₃ = H). The latter compd. showed 52.0 % **HIV** protease inhibitor activity at a concn. of 5 .mu.M.

ST heterocyclyl dipeptide prepn **HIV** protease inhibitor

IT Human immunodeficiency virus

(prepn. of **HIV**-protease inhibitors)

IT Peptides, preparation

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of **HIV**-protease inhibitors)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 183107-57-5P | 183107-74-6P | 186537-64-4P | 186537-65-5P | 186537-69-9P |
| | 186537-70-2P | 186537-76-8P | 186537-84-8P | 186537-85-9P | 186537-87-1P |
| | 186537-88-2P | 186537-89-3P | 186537-90-6P | 186537-91-7P | 186537-92-8P |
| | 186537-93-9P | 186537-94-0P | 186537-95-1P | 186537-96-2P | 186537-97-3P |
| | 186537-98-4P | 186537-99-5P | 186538-00-1P | 186538-01-2P | 186538-02-3P |
| | 186538-03-4P | 186538-04-5P | 186538-05-6P | 186538-06-7P | |

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of **HIV**-protease inhibitors)

IT 144114-21-6, Retropepsin

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)

(prepn. of **HIV**-protease inhibitors)

IT 55-22-1, Isonicotinic acid, reactions 59-67-6, Nicotinic acid, reactions 69-72-7, Salicylic acid, reactions 85-44-9, 1,3-Isobenzofurandione 88-13-1, 3-Thiophenecarboxylic acid 88-14-2, 2-Furancarboxylic acid 89-93-0, 2-Methylbenzylamine 98-98-6,

Picolinic

acid 99-04-7, m-Toluic acid 99-06-9, m-Hydroxybenzoic acid, reactions 99-10-5 99-94-5, p-Toluic acid 99-96-7, reactions 118-90-1,

o-Toluic

acid 121-91-5, 1,3-Benzenedicarboxylic acid, reactions 488-93-7, 3-Furancarboxylic acid 527-72-0, 2-Thiophenecarboxylic acid 548-93-6, 2-Amino-3-hydroxybenzoic acid 603-79-2, 2,3-Dimethylbenzoic acid 603-80-5, 3-Hydroxy-2-methylbenzoic acid 1679-64-7, Monomethyl terephthalate 28169-46-2, 2-Methyl-3,5-dinitrobenzoic acid 51077-16-8 52130-17-3, 3-Amino-2-methylbenzoic acid 66493-39-8 68790-38-5 111331-82-9 116661-86-0 147318-83-0 153380-43-9 158941-63-0 161979-36-8 166383-59-1 168899-32-9, 2-Ethyl-3-hydroxybenzoic acid 168899-38-5, 3-Hydroxy-2-propylbenzoic acid 177355-09-8 184955-18-8 186538-11-4 186538-15-8 186538-16-9 186538-17-0 186538-18-1 186538-19-2 186538-20-5

RL: RCT (Reactant)

.. (prepn. of HIV-protease inhibitors)
 IT 143935-42-6P 186538-07-8P 186538-08-9P 186538-09-0P 186538-10-3P
 186538-12-5P 186538-14-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of HIV-protease inhibitors)
 IT 186537-75-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of HIV-protease inhibitors)
 IT 186537-66-6P 186537-67-7P 186537-68-8P 186537-71-3P 186537-72-4P
 186537-73-5P 186537-74-6P 186537-77-9P 186537-78-0P 186537-79-1P
 186537-80-4P 186537-81-5P 186537-82-6P 186537-83-7P 186537-86-0P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (prepn. of HIV-protease inhibitors)

L7 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1998:17976 CAPLUS

DN 128:61798

TI Preparation of epoxide peptidomimetics as irreversible HIV
 protease inhibitors

IN Yoon, Heungsik; Choy, Nakyeon; Kim, Sung Chun; Choi, Ho Il; Son, Young
 Chan; Park, Chi Hyo; Moon, Kwang-yul; Jung, Wonhee; Kim, Chung Ryeol;

Lee,
 Chang Sun; Koh, Jong Sung; Kim, Sang Soo

PA LG Chemical Ltd., S. Korea

SO U.S., 50 pp. Cont.-in-part of U.S. Ser. No. 341,352, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K031-44

ICS A61K031-47

NCL 514314000

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 63

FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5696134 | A | 19971209 | US 1995-473877 | 19950607 |
| | US 5587388 | A | 19961224 | US 1993-159382 | 19931130 |
| | KR 125117 | B1 | 19971205 | KR 1994-13423 | 19940615 |
| | US 5773468 | A | 19980630 | US 1995-572402 | 19951214 |
| | US 5744621 | A | 19980428 | US 1996-667888 | 19960620 |
| | US 5763631 | A | 19980609 | US 1996-667133 | 19960620 |
| PRAI | US 1993-159382 | A2 | 19931130 | | |
| | KR 1994-13423 | A | 19940615 | | |
| | US 1994-341352 | B2 | 19941117 | | |
| | KR 1992-23088 | A | 19921202 | | |
| | KR 1992-23089 | A | 19921202 | | |
| | KR 1993-10811 | A | 19930614 | | |
| | KR 1993-21298 | A | 19931014 | | |
| | KR 1993-21299 | A | 19931014 | | |
| | KR 1993-21300 | A | 19931014 | | |
| | US 1995-473877 | A2 | 19950607 | | |
| | KR 1995-37292 | A | 19951026 | | |

OS MARPAT 128:61798

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

..AB Novel cis-epoxide compds. I [R1, R2 = independently H, alkyl; R3 = aryl
or alkyl (un)substituted with arom., C3-8 cycloalkyl; R4 = H, C1-4 alkyl; n
=
0-2; X = CO, COCO, S(O), SO2, CS; Y = O, CH2, NH, NMe; m = 0, 1; R5 =
heterocycle; straight, branched, or cyclic C1-8 alkyl; alkyl substituted
with heterocycle or cycloalkyl; straight, branched, or cyclic C1-8
alkoxy;
aryl-substituted alkoxy; NR6R7; R6 = straight or branched C1-8 alkyl,
cycloalkyl, alkyl substituted with cycloalkyl; R7 = H, alkyl; Z = O, NH,
NMe; R8, R9 = independently alkyl (un)substituted with arom. hydrocarbon
or cycloalkyl; C3-8 cycloalkyl; arom.] are useful for treating or
preventing diseases caused by HIV infection. The novel
HIV protease inhibitors I have specific structures to form stable
bonding with the enzyme active site, which entails a highly enhanced
irreversible inhibition against HIV protease. Thus deprotection
and peptide coupling of olefin II (prepd. in 4 steps from protected
L-phenylalaninal and (S)-2-amino-3-methyl-1-phenylbutane) with
penicillamine-derived sulfone III (prepd. in 3 steps from
L-penicillamine), followed by epoxidn. with mCPBA gave title epoxide
deriv. IV. IV showed irreversible inactivation of HIV-1
protease, with a stoichiometric ratio of inhibitor to enzyme of 1:1. IV
also showed antiviral activity against HIV-1 with IC50 = 1 nM.

ST epoxide peptidomimetic prepn HIV protease inhibitor; virucide
HIV epoxide peptidomimetic prepn; AIDS treatment epoxide
peptidomimetic prepn; immunomodulator epoxide peptidomimetic prepn

IT Peptidomimetics
(epoxide; prepn. of epoxide peptidomimetics as irreversible HIV
protease inhibitors)

IT Epoxides
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(peptidomimetics; prepn. of epoxide peptidomimetics as irreversible
HIV protease inhibitors)

IT Anti-AIDS drugs
Antiviral agents
Human immunodeficiency virus 1
Immunomodulators
(prepn. of epoxide peptidomimetics as irreversible HIV
protease inhibitors)

IT

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| 174562-29-9P | 174562-30-2P | 174562-31-3P | 174562-32-4P | 174562-33-5P |
| 174562-34-6P | 174562-35-7P | 174562-36-8P | 174562-37-9P | 174562-38-0P |
| 174562-39-1P | 174562-40-4P | 174562-41-5P | 174562-42-6P | 174562-43-7P |
| 174562-44-8P | 174562-45-9P | 174562-46-0P | 174562-47-1P | 174562-48-2P |
| 174562-49-3P | 174562-50-6P | 174562-51-7P | 174562-52-8P | 174562-53-9P |
| 174562-54-0P | 174562-55-1P | 174562-56-2P | 174562-57-3P | 174562-58-4P |
| 174562-59-5P | 174562-60-8P | 174562-61-9P | 174562-62-0P | 174562-63-1P |
| 174562-65-3P | 174562-66-4P | 174562-67-5P | 174562-68-6P | 174562-69-7P |
| 174562-70-0P | 174562-71-1P | 174562-72-2P | 174562-73-3P | 174562-74-4P |
| 174562-75-5P | 174562-76-6P | 174562-77-7P | 174562-78-8P | 174562-79-9P |
| 174562-80-2P | 174562-81-3P | 200262-27-7P | | |

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(prepn. of epoxide peptidomimetics as irreversible HIV
protease inhibitors)

IT 144114-21-6, Retropepsin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(prepn. of epoxide peptidomimetics as irreversible HIV
protease inhibitors)

IT 59-67-6, 3-Pyridinecarboxylic acid, reactions 78-77-3, Isobutyl
bromide 78-82-0, Isobutyronitrile 88-14-2, 2-Furancarboxylic acid

93-10-7, 2-Quinolincarboxylic acid 96-41-3, Cyclopentanol 98-00-0,
 2-Furanylmethanol 98-59-9, p-Toluenesulfonyl chloride 98-98-6,
 2-Pyridinecarboxylic acid 100-46-9, Benzylamine, reactions 100-55-0,
 3-Pyridylcarbinol 110-68-9, N-Methyl-N-butylamine 503-74-2,
 Isovaleric acid 527-72-0, 2-Thiophenecarboxylic acid 574-98-1,
 N-(2-Bromoethyl)phthalimide 586-95-8, 4-Pyridylcarbinol 586-98-1,
 2-Pyridylcarbinol 603-35-0, Triphenylphosphine, reactions 617-89-0,
 2-Furanylmethylamine 625-45-6, Methoxyacetic acid 1113-41-3,
 L-Penicillamine 2516-33-8, Cyclopropylmethanol 4083-57-2,
 3-Amino-2,4-dimethylpentane 5163-20-2, N-Methyl-N-cyclopropylamine
 6921-34-2, Benzylmagnesium chloride 6964-21-2, 3-Thiopheneacetic acid
 7693-46-1, p-Nitrophenyl chloroformate 13734-34-4 23844-66-8
 24939-24-0, p-Aminobenzenesulfonyl chloride 33445-07-7,

Isopropoxyacetic acid 59830-60-3, N-Benzyloxycarbonyl-L-phenylalaninal 80866-93-9
 96521-86-7 96928-87-9 111491-96-4 123617-80-1, 3-Furanacetic acid
 136465-98-0

RL: RCT (Reactant)

(prepn. of epoxide peptidomimetics as irreversible HIV
 protease inhibitors)

IT 65273-64-5P 82894-53-9P 97589-56-5P 112898-22-3P 156641-79-1P
 156641-81-5P 156641-83-7P 160742-44-9P 160742-45-0P 160742-70-1P
 160742-71-2P 174562-82-4P 174562-83-5P 174562-84-6P 174562-85-7P
 174562-86-8P 174562-88-0P 174562-89-1P 174562-90-4P 174562-91-5P
 174562-92-6P 174562-94-8P 196515-98-7P 200262-28-8P 200262-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of epoxide peptidomimetics as irreversible HIV
 protease inhibitors)

IT 156715-06-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of epoxide peptidomimetics as irreversible HIV
 protease inhibitors)

L7 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2001 ACS

AN 1998:661494 CAPLUS

DN 129:298375

TI Antimicrobial prevention and treatment of human immunodeficiency virus
 and

other infectious diseases

IN Squires, Meryl

PA USA

SO PCT Int. Appl., 99 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A01N033-12

ICS A61K031-14

CC 1-5 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|--|----------|-----------------|----------|
| PI | WO 9842188 | A1 | 19981001 | WO 1998-US5792 | 19980324 |
| | W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| | AU 9867718 | A1 | 19981020 | AU 1998-67718 | 19980324 |

| | | | | |
|------------|----|----------|----------------|----------|
| AU 727339 | B2 | 20001207 | | |
| BR 9807892 | A | 20000222 | BR 1998-7892 | 19980324 |
| EP 980203 | A1 | 20000223 | EP 1998-913086 | 19980324 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

| | | | | |
|---------------|----|----------|----------------|----------|
| JP 2000119188 | A2 | 20000425 | JP 1999-315917 | 19980324 |
| NO 9904639 | A | 19991124 | NO 1999-4639 | 19990924 |

PRAI US 1997-824041 A 19970326
JP 1998-545926 A3 19980324
WO 1998-US5792 W 19980324

AB An improved medical treatment and medicine is provided to quickly and safely resolve **HIV** and other microbial infections. The inexpensive medicine can be self administered and maintained for the prescribed time. The attractive medicine comprises an antimicrobial conc.

comprising microbe inhibitors, phytochems. or isolates. Desirably, the effective medicine comprises a surfactant and an aq. carrier or solvent and a nutrient. In the preferred form, the medicine comprises: Echinacea and Commiphora myrrha phytochems., benzalkonium chloride, a sterile water soln., and folic acid.

ST phytochem nutrient antimicrobial **HIV**; Echinacea Commiphora
phytochem surfactant antimicrobial **HIV**; folic acid phytochem
antimicrobial **HIV**

IT Labia
Lip
Lymph node
Lymphatic system
Oral mucosa
T cell (lymphocyte)
(administration to; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkylbenzyl dimethyl, bromides; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Bacilli
(anaerobic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Topical drug delivery systems
(and systemic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Allium
Anise
Arctostaphylos
Artemisia
Baptisia
Calendula
Capsicum
Carum
Compositae (Asteraceae)
Coriandrum
Echinacea angustifolia
Echinacea atribactilus
Echinacea pallida
Echinacea purpurea
Echinacea vaginalis
Eucalyptus
Eugenia myrtacea
Gentian (Gentiana)
Inula
Juniper (Juniperus)
Labiatae (Lamiaceae)
Meliosma

- .Mentha
- Mentha aquatica hypeuria
- Myroxylon
- Origanum
- Parthenium integrifolium
- Plantago
- Rosemary
- Ruta
- Sage (Salvia)
 - (antimicrobial isolates of; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
- IT Adenoviridae
- Amphoteric surfactants
- Antibacterial agents
- Antimicrobial agents
- Antiviral agents
- Arbovirus
- Arenavirus
- Bird (Aves)
- Cat (Felis catus)
- Cationic surfactants
- Cattle
- Commiphora erythraea
- Commiphora molmol
- Commiphora myrrha
- Coronavirus
- Cytomegalovirus
- Dog (Canis familiaris)
- Drug delivery systems
- Gums
- Horse (Equus caballus)
- Human herpesvirus 1
- Human herpesvirus 2
- Human herpesvirus 3
- Human herpesvirus 4
- Human immunodeficiency virus
- Human parainfluenza virus
- Influenza virus
- Injections (drug delivery systems)
- Livestock
- Mycobacterium
- Nasal drug delivery systems
- Nonionic surfactants
- Nutrients
- Ophthalmic drug delivery systems
- Papillomavirus
- Picornaviridae
- Rodent
- Sexually transmitted diseases
- Sheep
- Staphylococcus
- Streptococcus
- Surfactants
- Swine
- Vaginal drug delivery systems
- Zwitterionic surfactants
 - (antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
- IT Amides, biological studies
- Anthocyanins
- Enzymes, biological studies
- Fat-soluble vitamins

Natural products (pharmaceutical)
 Polyacetylenes, biological studies
 Polysaccharides, biological studies
 Proteins (general), biological studies
 Sesquiterpenes
 Tannins
 Vitamins
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial prevention and treatment of human immunodeficiency
 virus
 and other infectious diseases)
 IT Alkylbenzyltrimethylammonium chlorides
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial prevention and treatment of human immunodeficiency
 virus
 and other infectious diseases)
 IT Rectum
 (anus, administration to; antimicrobial prevention and treatment of
 human immunodeficiency virus and other infectious diseases)
 IT Encephalitis
 Meningitis
 (bacterial and viral; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Detergents
 (cationic; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Inflammation
 (cellulitis; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Polyacetylenes, biological studies
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (derivs.; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Animal tissue
 (periapical, administration to; antimicrobial prevention and treatment
 of human immunodeficiency virus and other infectious diseases)
 IT Plant (Embryophyta)
 (phytochems.; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Oral drug delivery systems
 (sublingual; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Quaternary ammonium compounds, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (surfactant; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Carboxylic acids, biological studies
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (tetraenoic; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT Vitamins
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (water-sol.; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT 50-81-7, Ascorbic acid, biological studies 57-10-3, Hexadecanoic acid,
 biological studies 57-88-5, Cholesterol, biological studies 58-86-6,
 Xylose, biological studies 59-23-4, Galactose, biological studies
 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological
 studies 59-67-6, Niacin, biological studies 64-19-7, Acetic

.acid, biological studies 68-19-9, Vitamin B12 76-49-3, Bornyl acetate
 79-83-4, Vitamin B5 80-56-8, .alpha.-Pinene 83-46-5,
 .beta.-Sitosterol
 83-48-7, Stigmasterol 83-88-5, Riboflavin, biological studies
 87-44-5,
 Caryophyllene 87-69-4 97-53-0, Eugenol 104-55-2, Cinnamaldehyde
 108-39-4, biological studies 112-85-6D, Docosanoic acid, derivs.
 117-39-5, Quercetin 121-33-5, Vanillin 122-03-2, Cuminaldehyde
 127-91-3, .beta.-Pinene 138-86-3, Limonene 147-81-9, Arabinose
 153-18-4, Rutin 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid
 331-39-5D, Caffeic acid, esters 474-58-8 474-62-4, Campesterol
 480-10-4, Kaempferol-3-glucoside 482-35-9, Quercetin-3-glucoside
 482-36-0 491-70-3, Luteolin 495-62-5, .gamma.-Bisabolene 504-97-2,
 Echinacein 507-70-0, Borneol 520-18-3, Kaempferol 520-36-5,
 Apigenin
 534-61-2, Isochlorogenic acid 536-60-7, Cumic alcohol 548-75-4,
 Quercetagenin-7-glucoside 563-83-7 593-50-0, n-Triacontanol
 604-80-8
 638-96-0, .alpha.-Amyrone 639-99-6, Elemol 643-20-9D, Pyrrolizidine,
 alkaloid 1139-30-6, Caryophyllene epoxide 1406-16-2, Vitamin D
 1406-18-4, Vitamin E 2450-53-5, 3,5-Dicaffeoylquinic acid 3562-36-5,
 Pontica epoxide 3615-41-6, Rhamnose 3812-32-6, Carbonate, biological
 studies 3943-97-3, Methyl p-hydroxycinnamate 4120-73-4,
 4-O-Methylglucuronic acid 5373-11-5, Luteolin-7-glucoside 5937-48-4,
 3-epi-.alpha.-Amyrin 6537-80-0, Chicoric acid 6556-12-3, Glucuronic
 acid 7235-40-7, .beta.-Carotene 7439-89-6, Iron, biological studies
 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese,
 biological studies 7440-09-7, Potassium, biological studies
 7440-23-5,
 Sodium, biological studies 7440-48-4, Cobalt, biological studies
 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus,
 biological
 studies 7782-49-2, Selenium, biological studies 8001-18-1, Echinacin
 8059-24-3, Vitamin B6 9005-80-5, Inulin 9014-63-5D, Xylan, derivs.
 9036-66-2, Arabinogalactan 9040-28-2, 4-O-Methylglucuronarabinoxylan
 11006-56-7, Vitamin B15 11103-57-4, Vitamin A 12001-79-5, Vitamin K
 12627-13-3, Silicate 13360-61-7, 1-Pentadecene 14808-79-8, Sulfate,
 biological studies 16887-00-6, Chloride, biological studies
 17627-44-0, .alpha.-Bisabolene 17650-84-9 18668-90-1,
 8-Pentadecen-2-one 18794-84-8, .beta.-Farnesene 19912-61-9,
 Furanodiene 20493-56-5, Curzerenone 23986-74-5, Germacrene D
 24268-41-5, Furanodienone 24738-51-0 25067-58-7, Polyacetylene
 25067-58-7D, Polyacetylene, derivs. 27214-55-7, Quercetin-3-xyloside
 28028-64-0, Germacrene 29350-73-0, Cadinene 30964-13-7, Cynarin
 36129-21-2 39007-92-6, Commiferin 47705-70-4 52525-35-6
 57378-72-0
 59440-97-0, Echinolone 61276-17-3, Verbascoside 67879-58-7
 69350-61-4, Epishyobunol 74282-22-7 75081-19-5, Pentadecadiene
 76963-26-3 80151-77-5, Tussilagine 82854-37-3, Echinacoside
 84744-28-5 91108-32-6, Isotussilagine 94977-38-5 99119-75-2
 99119-76-3 116752-09-1 116752-10-4 117841-81-3 118853-85-3
 125199-93-1 148879-89-4, Commiphoric acid 149531-55-5,
 .alpha.-Commiphoric acid 149531-56-6, .beta.-Commiphoric acid
 149531-57-7, .gamma.-Commiphoric acid 162666-19-5, Inuloidin
 205510-62-9, Echinacin B 214041-69-7 214041-70-0 214041-71-1
 214041-72-2 214041-73-3 214405-10-4, Heerabolene 214405-11-5,
 .alpha.-Heerabomyrrhol 214405-12-6, .beta.-Heerabomyrrhol
 214405-13-7,
 Heeraboresene 214405-44-4, Viracea 1 214405-45-5, Viracea 2
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial prevention and treatment of human immunodeficiency
 virus

.. and other infectious diseases)
 IT 120-32-1, o-Benzyl-p-chlorophenol 139-07-1,
 Lauryldimethylbenzylammonium
 chloride 5538-94-3, Dioctyldimethylammonium chloride 7173-51-5,
 Didecyldimethylammonium chloride 32426-11-2, Octyldecyldimethylammonium
 chloride
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antimicrobial prevention and treatment of human immunodeficiency
 virus
 and other infectious diseases)
 IT 12001-76-2, Vitamin B
 RL: BAC (Biological activity or effector, except adverse); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (complex; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)
 IT 79-14-1D, Glycolic acid, derivs.
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (surfactant; antimicrobial prevention and treatment of human
 immunodeficiency virus and other infectious diseases)

=> d his

(FILE 'HOME' ENTERED AT 12:05:27 ON 23 JUL 2001)

FILE 'REGISTRY' ENTERED AT 12:05:31 ON 23 JUL 2001

E NIACIN
 L1 15 S E3
 L2 15 S NIACIN
 E NIACIN
 L3 5 S E4

FILE 'CAPLUS' ENTERED AT 12:06:43 ON 23 JUL 2001

L4 13365 S L1
 L5 5592 S L3
 L6 48143 S HIV OR RETROVIRUS
 L7 30 S L4 AND L6
 L8 9 S L5 AND L6

=> s l8 not l7

L9 0 L8 NOT L7

=> s hsv or herpes

8165 HSV
 19185 HERPES
 L10 20090 HSV OR HERPES

=> s l5 and l10

L11 5 L5 AND L10

=> d l11 1-5

L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1998:648554 CAPLUS
 DN 130:20311
 TI Cytodifferentiating agents affect the replication of **herpes**
 simplex virus type 1 in the absence of functional VP16
 AU Preston, Chris M.; McFarlane, Morag

..CS Medical Research Council Virology Unit, Glasgow, G11 5JR, UK
 SO Virology (1998), 249(2), 418-426
 CODEN: VIRLAX; ISSN: 0042-6822
 PB Academic Press
 DT Journal
 LA English
 RE.CNT 43
 RE
 (1) Ace, C; J Virol 1989, V63, P2260 CAPLUS
 (3) Breslow, R; Proc Natl Acad Sci USA 1991, V88, P5542 CAPLUS
 (4) Chen, W; Proc Natl Acad Sci USA 1997, V94, P5798 CAPLUS
 (5) Daksis, J; Virology 1992; V189, P196 CAPLUS
 (6) Devary, Y; Mol Cell Biol 1991, V11, P2804 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1998:293397 CAPLUS

DN 128:326546

TI Methods and compositions for dietary supplementation

IN Burgstiner, Carson B.

PA Burgstiner, Jacqueline Cook, USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9818491 | A1 | 19980507 | WO 1997-US19564 | 19971028 |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, | | | | |
| SE | | | | | |
| PRAI | US 1996-29403 | | 19961028 | | |

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1994:116856 CAPLUS

DN 120:116856

TI Nitrous oxide-containing dermatological composition

IN Meyer, Petrus Johannes

PA Pitmy International N.V., Neth.

SO PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 9325213 | A1 | 19931223 | WO 1993-EP1405 | 19930603 |
| | W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, | | | | |
| | KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, | | | | |
| | SK, UA, US, VN | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, | | | | |
| | BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU | 9343225 | A1 | 19940104 | AU 1993-43225 | 19930603 |
| AU | 667549 | B2 | 19960328 | | |
| EP | 644766 | A1 | 19950329 | EP 1993-912877 | 19930603 |
| EP | 644766 | B1 | 19990317 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | |
| JP | 08500092 | T2 | 19960109 | JP 1993-501088 | 19930603 |
| AT | 177642 | E | 19990415 | AT 1993-912877 | 19930603 |
| ES | 2132236 | T3 | 19990816 | ES 1993-912877 | 19930603 |
| NO | 9404719 | A | 19941207 | NO 1994-4719 | 19941207 |
| US | 5633284 | A | 19970527 | US 1995-318626 | 19950213 |

..PRAI ZA 1992-4153 19920608
 AZ 1992-924153 19920608
 WO 1993-EP1405 19930603

L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1993:182853 CAPLUS
 DN 118:182853
 TI Antiviral properties of various drugs
 AU Amvrosyeva, T. V.; Votyakov, V. I.; Vladyko, G. V.; Andreeva, O. T.;
 Vervetchenko, S. G.; Goretskaya, I. S.; Klimashevskaya, L. M.
 CS Beloruss. Res. Inst. Epidemiol. Microbiol., Minsk, Belarus
 SO Antibiot. Khimioter. (1992), 37(11), 5-8
 CODEN: ANKHEW; ISSN: 0235-2990
 DT Journal
 LA Russian

L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1982:168754 CAPLUS
 DN 96:168754
 TI Multivitamin for treating **herpes** infections
 IN Girard, Michele; Baufle, Marie Chantal
 PA Fr.
 SO Fr. Demande, 8 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | FR 2484257 | A1 | 19811218 | FR 1980-13665 | 19800616 |
| | FR 2484257 | B3 | 19830311 | | |

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L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1998:648554 CAPLUS
 DN 130:20311
 TI Cytodifferentiating agents affect the replication of **herpes**
 simplex virus type 1 in the absence of functional VP16
 AU Preston, Chris M.; McFarlane, Morag
 CS Medical Research Council Virology Unit, Glasgow, G11 5JR, UK
 SO Virology (1998), 249(2), 418-426
 CODEN: VIRLAX; ISSN: 0042-6822
 PB Academic Press
 DT Journal
 LA English
 CC 1-6 (Pharmacology)
 Section cross-reference(s): 14
 AB The **herpes** simplex virus type 1 (HSV-1) mutant in1814
 encodes an altered form of the virion protein VP16 that is unable to
 transactivate immediate-early (IE) transcription. As a consequence of
 the
 mutation, in1814 initiates productive replication inefficiently after
 infection of tissue culture cells. Previous studies showed that this
 defect could be overcome by the inclusion in the culture medium of
 hexamethylene bisacetamide (HMB), a compd. that promotes the
 differentiation of murine erythroleukemia cells (MELCs). The effects of
 addnl. agents known to induce differentiation of MELCs were investigated.
 N'-Methylnicotinamide, at concns. optimal for the induction of MELCs,
 complemented the replication of in1814 and stimulated IE gene expression.
 Suberoyl bishydroxamic acid and suberoylanilide hydroxamic acid, which

induce differentiation of MELCs at micromolar concns., did not complement inl814 but specifically blocked the action of HMBA. The histone deacetylase inhibitor trichostatin A, which also induces differentiation of MELCs, antagonized the effect of HMBA in a manner similar to that of suberoyl bishydroxamic acid and suberoylanilide hydroxamic acid. The results demonstrate that the requirement for VP16 activity is dependent on the metabolic state of the host cell and that the pathways leading to complementation of inl814 and differentiation of MELCs are overlapping but not identical. (c) 1998 Academic Press.

ST cytodifferentiating agent **herpes** simplex virus replication VP16 protein

IT Differentiation inducers
Erythroleukemia
Human herpesvirus 1
(cytodifferentiating agents affect replication of **herpes** simplex virus type 1 in absence of functional VP16 in relation to differentiation of erythroleukemia cells in relation to immediate-early gene transcription)

IT Immediate early genes (animal)
VP16 transcription factor
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(cytodifferentiating agents affect replication of **herpes** simplex virus type 1 in absence of functional VP16 in relation to differentiation of erythroleukemia cells in relation to immediate-early gene transcription)

IT **98-92-0**, Nicotinamide 114-33-0, N'-Methylnicotinamide 3073-59-4, Hexamethylene bisacetamide 3106-60-3, 1-Methylnicotinamide 3222-47-7, 6-Methylnicotinic acid 6960-22-1, 6-Methylnicotinamide 38937-66-5 58880-19-6, Trichostatin A 149647-78-9
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(cytodifferentiating agents affect replication of **herpes** simplex virus type 1 in absence of functional VP16 in relation to differentiation of erythroleukemia cells in relation to immediate-early gene transcription)

RE.CNT 43

RE

- (1) Ace, C; J Virol 1989, V63, P2260 CAPLUS
- (2) Bernstein, D; Arch Virol 1988, V99, P57 MEDLINE
- (3) Breslow, R; Proc Natl Acad Sci USA 1991, V88, P5542 CAPLUS
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- (13) Harris, R; J Gen Virol 1991, V72, P907 CAPLUS
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- (17) Kiyokawa, H; Proc Natl Acad Sci USA 1993, V90, P6746 CAPLUS
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- (19) MacLean, C; J Gen Virol 1991, V72, P897 CAPLUS
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- (28) Ralph, W; J Virol 1994, V68, P6871 CAPLUS
- (29) Ramsay, R; Proc Natl Acad Sci USA 1986, V83, P6849 CAPLUS
- (30) Reuben, R; Biochim Biophys Acta 1980, V605, P325 CAPLUS
- (31) Richon, V; Proc Natl Acad Sci USA 1996, V93, P5705 CAPLUS
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L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1998:293397 CAPLUS

DN 128:326546

TI Methods and compositions for dietary supplementation

IN Burgstiner, Carson B.

PA Burgstiner, Jacqueline Cook, USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K047-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 17

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | WO 9818491 | A1 | 19980507 | WO 1997-US19564 | 19971028 |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, | | | | |

SE

PRAI US 1996-29403 19961028

AB The present invention provides a compn. comprising thymic-derived factors and enzymic co-factors, wherein the thymic-derived factors can be thymus ext., thymus enzymic polypeptide factors, thymosin, thymopoietin and thymic humoral factor and the enzymic co-factors can be vitamins A, C, D, E, B-1, B-2, B-6, B-12, minerals. The compn. can also comprise amino acids which can be arginine, cysteine, histidine, ornithine, isoleucine, leucine, threonine, tyrosine, valine, phenylalanine and methionine. The compn. of this invention can further comprise glandular factors which can be raw spleen, raw lymph, raw bone marrow and raw pituitary. Also provided are methods of increasing serum levels of thymosin alpha 1 in a subject; of enhancing the immune system of a subject by increasing serum levels of thymosin alpha 1 in the subject; of treating an autoimmune disease such as systemic lupus erythematosus, multiple sclerosis and rheumatoid arthritis in a subject; of treating a viral infection caused

by

a virus such as Hepatitis A virus, hepatitis B virus, **herpes** virus, hepatitis C virus and human immunodeficiency virus in a subject; and of enhancing athletic performance in a subject by increasing hematocrit and reducing recovery time in the subject, wherein all of

these

methods comprise administering to the subject the compns. of the present invention.

ST dietary supplement compn; vitamin dietary supplement compn; amino acid dietary supplement compn

IT Autoimmune diseases
 Bone marrow
 Lymph
 Multiple sclerosis
 Pituitary gland
 Rheumatoid arthritis
 Spleen
 Systemic lupus erythematosus
 Thymus gland
 (dietary supplement compns.)

IT Amino acids, biological studies
 Minerals, biological studies
 Peptides, biological studies
 Vitamins
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (dietary supplement compns.)

IT AIDS (disease)
 Hepatitis A virus
 Hepatitis B virus
 Hepatitis C virus
 Human herpesvirus
 Human immunodeficiency virus
 (infection; dietary supplement compns.)

IT Diet
 (therapeutic; dietary supplement compns.)

IT 50-81-7, Vitamin C, biological studies 52-90-4, L-Cysteine, biological studies 56-87-1, L-Lysine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Vitamin B1, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 62-49-7, Choline 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 68-19-9, Vitamin B12 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-32-5, L-Isoleucine, biological studies 74-79-3,

L-Arginine,
 biological studies 79-83-4, Pantothenic acid 83-88-5, Vitamin B2, biological studies 87-89-8, Inositol 98-92-0, Niacinamide 150-13-0, p-Aminobenzoic acid 153-18-4, Rutin 520-26-3, Hesperidin 590-46-5, Betaine hydrochloride 1406-16-2, Vitamin D 1406-18-4, Vitamin E 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-09-7, Potassium, biological studies 7440-42-8, Boron, biological studies 7440-47-3, Chromium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7553-56-2, Iodine, biological studies 7782-49-2, Selenium, biological studies 8059-24-3, Vitamin B6 9001-73-4, Papain 9002-07-7, Trypsin 11103-57-4, Vitamin A 60529-76-2, Thymopoietin 61512-21-8, Thymosin 63340-72-7, Thymic humoral factor 68580-63-2, Octacosanol

150977-36-9,
 Bromelain
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (dietary supplement compns.)

L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1993:182853 CAPLUS
 DN 118:182853
 TI Antiviral properties of various drugs
 AU Amvrosyeva, T. V.; Votyakov, V. I.; Vladyko, G. V.; Andreeva, O. T.; Vervetchenko, S. G.; Goretskaya, I. S.; Klimashevskaya, L. M.

CS Beloruss. Res. Inst. Epidemiol. Microbiol., Minsk, Belarus
 SO Antibiot. Khimioter. (1992), 37(11), 5-8
 CODEN: ANKHEW; ISSN: 0235-2990
 DT Journal
 LA Russian
 CC 1-5 (Pharmacology)
 AB The cardiovascular drugs nicotinamide, strophanthin, corglycone, curantyl, cavinton, papaverine, nicotinic acid, xanthinol nicotinate, isoptin, parmidine, and halidor were screened for antiviral effects. Most of them (9 of 11) had an activity which was rather individual by its specificity and level. Lab. strains of **herpes** simplex, variola, influenza, vesicular stomatitis, respiratory syncytial infection, Venezuelan equine encephalitis, ECHO, Lassa fever, and rota viruses were tested. The characteristic feature of the drugs was their high specific activity against the DNA viruses and rotavirus. Papaverine, strophanthin, and corglycone were most promising. Their antiviral activity was confirmed in a model **herpes** infection in mice. The clin. implications of these virucidal side-effects are discussed.
 ST cardiovascular drug virucide side effect
 IT Virucides and Virustats
 (cardiovascular drugs as)
 IT Cardiovascular agents
 (virucidal effects of)
 IT 52-53-9, Isoptin 58-32-2, Curantyl 58-74-2, Papaverine 59-67-6, Nicotinic acid, biological studies 98-92-0, Nicotinamide 437-74-1, Xanthinol nicotinate 508-75-8, Corglycone 1882-26-4, Parmidine 11005-63-3, Strophanthin 14286-84-1, Halidor 42971-09-5, Cavinton
 RL: PRP (Properties)
 (virucidal effects of)
 L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS
 AN 1982:168754 CAPLUS
 DN 96:168754
 TI Multivitamin for treating **herpes** infections
 IN Girard, Michele; Baufle, Marie Chantal
 PA Fr.
 SO Fr. Demande, 8 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 IC A61K031-66; A61K031-07; A61K031-59; A61K031-195; A61K031-335; A61K031-395
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | FR 2484257 | A1 | 19811218 | FR 1980-13665 | 19800616 |
| | FR 2484257 | B3 | 19830311 | | |

 AB All cases of **herpes** (recurrent, labial, genital) could be treated rapidly and efficiently by a multivitamin compn. contg. vitamin A [11103-57-4] trace, vitamin D3 [67-97-0] trace, vitamin B1 [59-43-8] 1-5, vitamin B2 [83-88-5] 1-5, vitamin B5 [79-83-4] 1-5, vitamin B6 [8059-24-3] 0.5-1, vitamin B8 [64060-35-1] 0.01-0.05, vitamin B9 [11096-55-2] 0.05-0.1, vitamin B12 [68-19-9] 0.001-0.002, vitamin C [50-81-7] 20-50, vitamin E [1406-18-4] 2-10, and vitamin PP [11032-50-1] 0.01-0.02 mg.
 ST **herpes** treatment multivitamin; vitamin **herpes** infection
 IT Vitamins

RL: BIOL (Biological study)
 (herpes infection treatment with, in humans)
 IT Virus, animal
 (herpes, infection with, multivitamin compn. for treatment
 of, in humans)
 IT 58-56-0 58-85-5 58-95-7 59-30-3, biological studies 98-92-0
 137-08-6 146-17-8
 RL: BIOL (Biological study)
 (herpes infection treatment with multivitamin compn. contg.,
 in humans)
 IT 50-81-7, biological studies 59-43-8, biological studies 67-97-0
 68-19-9 79-83-4 83-88-5, biological studies 1406-18-4 8059-24-3
 11032-50-1 11096-55-2 11103-57-4 64060-35-1
 RL: BIOL (Biological study)
 (herpes infection treatment with multivitamin compn. contg.,
 in humans)

=> d his

(FILE 'HOME' ENTERED AT 12:05:27 ON 23 JUL 2001)

FILE 'REGISTRY' ENTERED AT 12:05:31 ON 23 JUL 2001

E NIACIN
 L1 15 S E3
 L2 15 S NIACIN
 E NIACIN
 L3 5 S E4

FILE 'CAPLUS' ENTERED AT 12:06:43 ON 23 JUL 2001

L4 13365 S L1
 L5 5592 S L3
 L6 48143 S HIV OR RETROVIRUS
 L7 30 S L4 AND L6
 L8 9 S L5 AND L6
 L9 0 S L8 NOT L7
 L10 20090 S HSV OR HERPES
 L11 5 S L5 AND L10

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

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|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 79.80 | 91.97 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -7.06 | -7.06 |

STN INTERNATIONAL LOGOFF AT 12:28:04 ON 23 JUL 2001

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